

Notice of Allowability	Application No.	Applicant(s)	
	10/084,776	PANICCIA, MARIO J.	
	Examiner	Art Unit	
	John D. Lee	2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--
 All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Request For Continued Examination (RCE) filed on February 23, 2004.
2. ☒ The allowed claim(s) is/are 1-3 and 5-30.
3. ☒ The drawings filed on 06 October 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

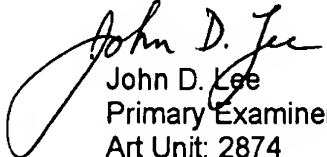
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>1103.0204</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |


 John D. Lee
 Primary Examiner
 Art Unit: 2874

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A request for continued examination under 37 CFR § 1.114, including the fee set forth in 37 CFR § 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR § 1.114, and the fee set forth in 37 CFR § 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR § 1.114. Applicant's submission filed on February 23, 2004, has been entered.

It is noted that no changes to the claims have been made by this request for continued examination. Previously unconsidered prior art documents were submitted in Information Disclosure Statements filed on November 24, 2003, and February 23, 2004. The claims which were allowed in the Office action mailed on November 25, 2003, are now examined with respect to the newly cited prior art documents. Note the attached initialed copy of forms PTO-1449. Further search by the Examiner has uncovered no additional relevant prior art.

EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE

The following is an Examiner's Statement of Reasons for Allowance: After reviewing all the prior art of record, including the newly cited prior art documents submitted by applicant, U.S. Patent Application Publication 2003/0021305 A1 to Lundqvist, U.S. Patent 6,330,255 to Hung, and U.S. Patent 6,172,791 to Gill remain the closest prior art documents of record. Applicant previously amended the claims of the present application to require that the optical modulator include a plurality of capacitors

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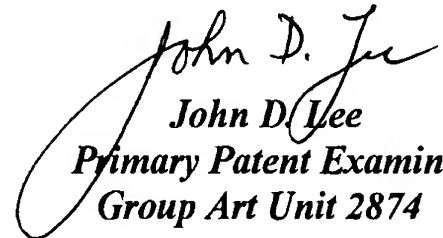
having charge modulated regions in the semiconductor substrate, and that the charge modulated regions of the capacitors modulate the optical beam generated from the gain medium when the optical beam is directed through the semiconductor substrate and through the charge modulated regions of the capacitors. As stated in the Office action mailed on November 25, 2003, the Examiner agrees that the Lundqvist, Hung, and Gill references do not disclose or suggest these claim limitations. Only the Gill reference discusses capacitors in a waveguide coupling structure, but the Examiner agrees that Gill's arrangement is totally different than that being claimed herein. None of the newly considered prior art documents discloses or suggests such a plural capacitor optical modulator which includes, as fundamental components, a gain medium and a tunable Bragg grating in a semiconductor substrate. Claims 1-3 and 5-30 herein are therefore allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning the merits of this communication should be directed to Examiner John D. Lee at telephone number (571) 272-2351. The Examiner's normal work schedule is Tuesday through Friday, 6:30 AM to 5:00 PM. Any inquiry of a general or clerical nature (i.e. a request for a missing form or paper, etc.) should be directed to the Technology Center 2800 receptionist at telephone number (571) 272-1562, to the

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technical support staff supervisor (Team 8) at telephone number (571) 272-1564, or to the Technology Center 2800 Customer Service Office at telephone number (571) 272-1626.


John D. Lee
Primary Patent Examiner
Group Art Unit 2874